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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,875

09/22/2006

Tetsuya Otsaka

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EXAMINER

STOCK JR, GORDON J

ART UNIT

PAPER NUMBER

2877

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,875	<b>Applicant(s)</b> OTOSAKA, TETSUYA	
	<b>Examiner</b> GORDON J. STOCK JR	<b>Art Unit</b> 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060922</u> .  | 6) <input type="checkbox"/> Other: _____                          |

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### **DETAILED ACTION**

1. The Preliminary Amendment received September 22, 2006 has been entered into the record.

#### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on September 22, 2006 has been considered by the examiner.

#### ***Drawings and Specification***

3. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
4. The abstract of the disclosure is objected to because it exceeds 150 words. Correction is required. See MPEP § 608.01(b).

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. **Claims 1-2, 5, 8, 10, 14, 15, 18, 20, 22, and 23** are rejected under 35 U.S.C. 102(b) as being anticipated by **Onishi et al. (JP 2003042894 A)-using machine translation.**

As for **claims 1 and 14**, Onishi discloses the following an apparatus/method for measuring non-circularity of a core part of an optical fiber base material having the core part and a clad part (paragraphs 0004 and 0015), comprising the steps and means for : immersing the optical fiber base material in liquid having a refractive index substantially equal to that of the clad part of the optical fiber base material (paragraphs 0006, 0014, 0021; Drawing 1: 2); irradiating parallel light from a side face of the optical fiber base material to measure intensity distribution of transmitted light (Drawing 1: 3, R, 4); measuring a width of a dark space caused by light passing the core part on intensity distribution to obtain a relative value for a core diameter (Drawings 2a-2b); rotating the optical fiber base material to further obtain the relative value for the core diameter at plural points for a circumferential direction (paragraphs 0019 and 0022); and obtaining non-circularity of the core part based on the obtained plurality of relative values for the core diameter (paragraphs 0020, 0023, and 0024).

As for **claims 2 and 15**, Onishi discloses everything as above (see **claims 1 and 15**). In addition, Onishi discloses the following: wherein the width of the dark space caused by light passing the core part is measured and wherein said means for obtaining a relative value for a core diameter is a parallel light projection type diameter measurement device (Drawings 2a-2b; paragraphs 0016 and 0024).

As for **claim 5**, Onishi discloses everything as above (see **claim 1**). In addition, he discloses the following: wherein the relative value  $D_{\text{sub.c}}(\phi)$  for the core diameter measured

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from the plurality of circumferential directions is fitted to  $D \cdot \sin^2(\phi) = A + B \sin^2(\phi)$ , and the non-circularity of the core part is set to  $2B/A$  (paragraphs 0026 and 0032).

As for **claims 8 and 18**, Onishi disclose everything as above (see **claims 1 and 14**). In addition, he suggests the following: wherein a portion of a vessel accommodating liquid, which is passed through by parallel light and the transmitted light at least irradiated on the optical fiber base material, consists of a material having a refractive index substantially equal to that of the clad part (Drawing 2a: demonstrates that there is a refractive index difference between the core and the cladding but not the container, immersion fluid, and cladding).

As for **claims 10 and 20**, Onishi discloses everything as above (see **claims 1 and 14**). In addition, he discloses the following: wherein the vessel accommodating liquid has a parallel outer surface opposite to a portion passed through by parallel light and the transmitted light at least irradiated on the optical fiber base material, and a cylindrical hole is provided in a center of the vessel (Drawing 2a with Drawing 1: 2).

As for **claims 22 and 23**, Onishi discloses everything as above (see **claim 14**). In addition, he discloses the following: a preform analyzer (paragraphs 0031-0032; Drawing 1: 6) and a control and arithmetic unit for performing control and arithmetic processing for each means (Drawing 1: 6).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. **Claims 3, 4, 7, 11-13, 16, 17, 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Onishi et al. (JP 2003042894 A)-using machine translation.**

As for **claims 3 and 16**, Onishi discloses everything as above (see **claims 1 and 14**). He does not explicitly state the measurement device can adjust a detection threshold value. However, Examiner takes Official Notice that it is well-known in the art to have adjustable gains for detection systems. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to have the device have an adjustable gain and therefore an adjustable detection threshold value in order to adjust detection sensitivity.

As for **claim 4**, Onishi discloses everything as above (see **claim 1**). In addition, he discloses wherein the non-circularity of the core part is obtained (paragraphs 0026 and 0032). He does not explicitly state that the non-circularity is obtained by dividing a difference between a maximum value and a minimum value for the relative values for the core diameter measured from the plurality of circumferential directions by a mean value for the relative values for the core diameter. However, he suggests it from the fitting of all points (paragraph 0026) and that other types of formulae may be used (paragraph 0032). And it would have been obvious to one having ordinary skill in the art at the time of the invention was made to obtain the non-circularity by dividing a difference between a maximum value and a minimum value for the relative values for the core diameter measured from the plurality of circumferential directions by a mean value for the relative values for the core diameter, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)

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As for **claims 7 and 17**, Onishi discloses everything as above (see **claims 1 and 14**). In addition, his main embodiment has a horizontal arrangement (Drawing 1). He does not explicitly state that there is a vertical arrangement and vertical holding means for the preform though he suggests this (paragraph 0030). Nevertheless, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a vertical arrangement with vertical holding means rather than a horizontal arrangement with horizontal holding means since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70

As for **claims 11 and 21**, Onishi discloses everything as above (see **claims 10 and 20**). In addition, he states that the container may be of different design and discloses the use of Viton (paragraphs 0030 and 0015). He is silent concerning polishing. However, Examiner takes Official Notice that cleaning components is well known in the art. Therefore, it would be obvious to one of ordinary skill in the art to polish the container in order to prevent diffusion of collimated light through the structure which would cause inaccurate measurements and to provide a smooth surface for the Viton for a clean seal.

As for **claims 12-13**, Onishi discloses everything as above (see **claim 1**). He is silent concerning temperature regulation of the liquid and the atmosphere. However, Examiner takes Official Notice that it is well known that materials expand and contract a certain amount due to temperature. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to regulate the atmosphere and liquid at a constant temperature in order to prevent inaccurate measurements due to variation in temperature and therefore variation in the optical preform and measurement device components dimensions.

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9. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Onishi et al. (JP 2003042894 A)-using machine translation** in view of **Jasapara et al. (2004/0227952)**.

As for **claim 6**, Onishi discloses everything as above (see **claim 5**). In addition, he suggests that other types of analysis may be performed (paragraphs 0026 and 0032). Onishi does not explicitly state using Fourier analysis. However, Jasapara in an optical fiber characterization apparatus teaches the use of Fourier analysis (paragraph 0002). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to use Fourier analysis in order to determine concentricity of the fiber core.

10. **Claims 9 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Onishi et al. (JP 2003042894 A)-using machine translation** in view of **Ingles et al. (6,937,925)**.

As for **claims 9 and 19**, Onishi discloses everything as above (see claims 1 and 14). In addition, he suggests that the container may be of different design (paragraph 0030) and shows the refractive indices of the cladding and container are similar (Drawing 2a: demonstrates that there is a refractive index difference between the core and the cladding but not the container, immersion fluid, and cladding). He is silent concerning the material of the container being the same as the cladding. However, Ingles teaches that the material for containment matches the refractive index of the cladding (col. 6, line 20-40). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to have the container comprise the same material as the cladding in order to have the same refractive index to easily differentiate the core that has a different refractive index from the cladding when measuring concentricity of the core.



### ***Conclusion***

11. Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made by the Board of Patent Appeals and Interferences. In re Selmi, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the **next reply** after the Office action in which the well known statement was made.

### ***Fax/Telephone Numbers***

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

1) Contain either a statement “DRAFT” or “PROPOSED AMENDMENT” on the fax cover sheet; and

2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

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*Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: **(571) 273-8300***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (571) 272-2431.

The examiner can normally be reached on Monday-Friday, 8:00 a.m. - 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr., can be reached at 571-272-2800 ext 77.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/G. J. S./  
Examiner, Art Unit 2877

/Gregory J. Toatley, Jr./  
Supervisory Patent Examiner, Art Unit 2877  
12/08/08